Optics Quiz 1 Review

Key Terms:   
Incandescence Fluorescence Luminescence Phosphorescence   
Chemiluminescence Bioluminescence wavelength reflection  
medium ray incident ray reflected ray  
angle of incidence angle of reflections normal plane mirror  
concave convex principal axis focal point  
focal length

Apart from the key terms above, you should know the following from chapter 10

From Chapter 10.1

* know all the different types of light
* know how electric discharge works
* understand the process of how an excited atom produces light (electron jumping up a shell)
* know light is an electromagnetic wave and how we can only see certain wavelengths

From Chapter 10.2

* know that light travels in a straight line called a ray
* know how to use rays and the law of reflection to draw an image using ray diagrams
* know the four characteristics of images (location, orientation, size and type)
* know the difference between virtual image and a real image

From Chapter 10.3 and 10.4

* know how to draw ray diagrams to determine where the image is in curved mirrors
* know how to use the mirror equation
* know how to use the magnification equation

Equations:

Mirror Equation:

Magnification Equation:

Recommended Questions:  
Pg 444 # 1-8, 10, 11, 13, 19, 20  
pg 436 # 1-7  
pg 427 # 1-5

Answers:

Pg. 427

1. di=15, hi=-0.9
2. di=-2, hi=2
3. di=4.8, hi=-1.8
4. f=68.1
5. f=45

Pg. 436

1. di=-0.66m, hi=-0.106m
2. di=-2.9166cm, hi=2.08cm
3. di=-1.33cm, hi=2cm
4. di=-0.46m, hi=0.17m
5. di=-0.235m, hi=0.088m
6. di=-0.66m, hi=-0.106m
7. di=-38.7cm, hi=12.096cm